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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/628,563	07/29/2003	Sheldon M. Retchin	02940231AA	4829
28960	7590	08/24/2006	EXAMINER	
HAVERSTOCK & OWENS LLP 162 NORTH WOLFE ROAD SUNNYVALE, CA 94086			NI, SUHAN	
			ART UNIT	PAPER NUMBER
			2615	
DATE MAILED: 08/24/2006				

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/628,563

Applicant(s)

RETSCHIN ET AL.

Examiner

Suhan Ni

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on 12 June 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-47 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-47 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>7/03;3/04;3/06</u> . | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

1. The Art Unit location of your application in the PTO has changed. To aid in correlating any papers for this application, all further correspondence regarding this application should be directed to Group **Art Unit 2615**.
2. This communication is responsive to the application filed 06/12/2006.

***Specification***

The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

**Arrangement of the Specification**

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC (See 37 CFR 1.52(e)(5) and MPEP 608.05. Computer program listings (37 CFR 1.96(c)), "Sequence Listings" (37 CFR 1.821(c)), and tables having more than 50 pages of text are permitted to be submitted on compact discs.) or REFERENCE TO A "MICROFICHE APPENDIX" (See MPEP §

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608.05(a). "Microfiche Appendices" were accepted by the Office until March 1, 2001.)

(e) BACKGROUND OF THE INVENTION.

(1) Field of the Invention.

(2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.

(f) BRIEF SUMMARY OF THE INVENTION.

(g) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).

(h) DETAILED DESCRIPTION OF THE INVENTION.

(i) CLAIM OR CLAIMS (commencing on a separate sheet).

(j) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).

**Content of Specification**

- (a) Title of the Invention: See 37 CFR 1.72(a) and MPEP § 606. The title of the invention should be placed at the top of the first page of the specification unless the title is provided in an application data sheet. The title of the invention should be brief but technically accurate and descriptive, preferably from two to seven words may not contain more than 500 characters.
- (b) Cross-References to Related Applications: See 37 CFR 1.78 and MPEP § 201.11.
- (c) Statement Regarding Federally Sponsored Research and Development: See MPEP § 310.
- (d) Incorporation-By-Reference Of Material Submitted On a Compact Disc: The specification is required to include an incorporation-by-reference of electronic documents that are to become part of the permanent United States Patent and

Trademark Office records in the file of a patent application. See 37 CFR 1.52(e) and MPEP § 608.05. Computer program listings (37 CFR 1.96(c)), "Sequence Listings" (37 CFR 1.821(c)), and tables having more than 50 pages of text were permitted as electronic documents on compact discs beginning on September 8, 2000. Or alternatively, Reference to a "Microfiche Appendix": See MPEP § 608.05(a). "Microfiche Appendices" were accepted by the Office until March 1, 2001.

(e) Background of the Invention: See MPEP § 608.01(c). The specification should set forth the Background of the Invention in two parts:

(1) Field of the Invention: A statement of the field of art to which the invention pertains. This statement may include a paraphrasing of the applicable U.S. patent classification definitions of the subject matter of the claimed invention. This item may also be titled "Technical Field."

(2) Description of the Related Art including information disclosed under 37 CFR 1.97 and 37 CFR 1.98: A description of the related art known to the applicant and including, if applicable, references to specific related art and problems involved in the prior art which are solved by the applicant's invention. This item may also be titled "Background Art."

(f) Brief Summary of the Invention: See MPEP § 608.01(d). A brief summary or general statement of the invention as set forth in 37 CFR 1.73. The summary is separate and distinct from the abstract and is directed toward the invention rather than the disclosure as a whole. The summary may point out the advantages of the invention or how it solves problems previously existent in the prior art (and

preferably indicated in the Background of the Invention). In chemical cases it should point out in general terms the utility of the invention. If possible, the nature and gist of the invention or the inventive concept should be set forth. Objects of the invention should be treated briefly and only to the extent that they contribute to an understanding of the invention.

- (g) Brief Description of the Several Views of the Drawing(s): See MPEP § 608.01(f). A reference to and brief description of the drawing(s) as set forth in 37 CFR 1.74.
- (h) Detailed Description of the Invention: See MPEP § 608.01(g). A description of the preferred embodiment(s) of the invention as required in 37 CFR 1.71. The description should be as short and specific as is necessary to describe the invention adequately and accurately. Where elements or groups of elements, compounds, and processes, which are conventional and generally widely known in the field of the invention described and their exact nature or type is not necessary for an understanding and use of the invention by a person skilled in the art, they should not be described in detail. However, where particularly complicated subject matter is involved or where the elements, compounds, or processes may not be commonly or widely known in the field, the specification should refer to another patent or readily available publication which adequately describes the subject matter.
- (i) Claim or Claims: See 37 CFR 1.75 and MPEP § 608.01(m). The claim or claims must commence on separate sheet or electronic page (37 CFR 1.52(b)(3)). Where a claim sets forth a plurality of elements or steps, each element or step of the claim should be separated by a line indentation. There may be plural indentations

to further segregate subcombinations or related steps. See 37 CFR 1.75 and MPEP § 608.01(i)-(p).

- (j) Abstract of the Disclosure: See MPEP § 608.01(f). A brief narrative of the disclosure as a whole in a single paragraph of 150 words or less commencing on a separate sheet following the claims. In an international application which has entered the national stage (37 CFR 1.491(b)), the applicant need not submit an abstract commencing on a separate sheet if an abstract was published with the international application under PCT Article 21. The abstract that appears on the cover page of the pamphlet published by the International Bureau (IB) of the World Intellectual Property Organization (WIPO) is the abstract that will be used by the USPTO. See MPEP § 1893.03(e).
- (k) Sequence Listing. See 37 CFR 1.821-1.825 and MPEP §§ 2421-2431. The requirement for a sequence listing applies to all sequences disclosed in a given application, whether the sequences are claimed or not. See MPEP § 2421.02.

3. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

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4. The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

***Claim Objections***

5. Claims 1-47 are objected to because of the following informalities:

There are numerous of informalities in the claims, the examples are:

"a means" in claim 1, under line 5;

"a housing means" in claim 1, under line 7;

In claim 2, the limitation of "said at least one **transducer** includes a plurality of **transducers**" in lines 1-2 is indefinite, since it is not clear what the limitation is.

In claim 4, it recites the limitation of "the musical frequency range" in lines 1-2. There is insufficient antecedent basis for this limitation in the claim.

....

In claim 19, it recites the limitation of "said waterproof recreational audio device" in lines 1-2. There is insufficient antecedent basis for this limitation in the claim.

...

In claim 22, it recites the limitation of "said waterproof recreational audio device" in lines 1-2. There is insufficient antecedent basis for this limitation in the claim.

...

In claim 26, the limitation of "a fixed maximum signal level of 90 dBa for 8 hours" in line 2 is indefinite, since it is not clear what the limitation is.

...



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Since there are too many informalities terms and/or limitations in the claims, the applicant's corporation for thoroughly revising the claims would be highly desirable for speeding up the processing of this application.

Appropriate correction is required.

***Claim Rejections - 35 USC § 112, 1<sup>st</sup> Paragraph***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

6. Claim 19 is rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The feature of how to precisely determine a low, middle and high frequency response range is not clearly supported by specification.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) The invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) The invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

7. Claims 1-5, 7-8, 11, 15-17, 27 and 39-47 are rejected under 35 U.S.C. 102(b) as being anticipated by Bottesch (U. S. Pat. - 5,323,468).

Regarding claims 1 and 32, Bottesch discloses an audio device, comprising: at least one bone conductive transducer assembly (10) for providing sound to a user; means (12) for securing said transducer assembly onto user's head; and at least a housing member (98) for enclosure said at least one bone conductive transducer assembly.

Regarding claims 2-3 and 7, Bottesch further discloses the audio device, wherein said transducer assembly further includes a plurality of transducers (90, 92, 94).

Regarding claims 4-5, Bottesch further discloses the audio device, wherein a frequency range of the sound is split into three frequency channels (A, B, C) as claimed.

Regarding claim 8, Bottesch further discloses the audio device, wherein the audio device further includes at least one amplifier (70).

Regarding claim 11, Bottesch further discloses the audio device, wherein the transducer assembly is associated with a band (12) that encircles the head of a user.

Regarding claims 15-17, Bottesch further discloses the audio device, wherein a volume of said low, middle or high frequency range is adjustable (70).

Regarding claims 27 and 39, Bottesch further discloses the audio device, wherein the audio device further comprises a sound source (36) in communication with said at least one transducer assembly as claimed.

Method claims 40-47 are similar to claims 1-5, 7-8, 11, 15-17, 27 and 39 except for being couched in method terminology; such methods would be inherent when the structure is shown in the references.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 6, 9-10, 12-14, 18-26, 28-31, 38 and 40-47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bottesch (U. S. Pat. - 5,323,468)

Regarding claims 6 and 20, Bottesch does not clearly teach an ultrasonic transducer as claimed. Since providing an ultrasonic transducer for a bone conductive head set is very well known in the art, it therefore would have been obvious to one skilled in the art at the time the invention was made to be motivated to provide a suitable ultrasonic transducer for the head set as an alternate choice, in order to provide more desirable sensation for the user.

Regarding claims 9-10 and 34-36, Bottesch does not clearly teach in details of locations of the assembly as claimed. Since providing bone conductive transducer assembly on a desirable location of the user's head is very well known in the art, it therefore would have been obvious to one skilled in the art at the time the invention was made to be motivated to engage the assembly in a suitable location, such as front of the head, in order to obtain more desirable sensation for the user.

Regarding claims 12-14, Bottesch does not clearly teach in details of supporting means as claimed. Since providing a suitable supporting means for the bone conductive transducer assembly of the headset is very well known in the art, it therefore would have been obvious to one skilled in the art at the time the invention was made to be motivated to provide suitable supporting means, such as a hat, for the transducer assembly of the headset, in order to utilize the headset in different application.

Regarding claims 18-19 and 26, Bottesch does not clearly teach in details of processing the audio signal as claimed. Since providing a suitable signal processing, such as audible

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frequency range filtering with overlapping partition and processing is very well known in the art, it therefore would have been obvious to one skilled in the art at the time the invention was made to be motivated to provide suitable signal processing, such as audible frequency range filtering with overlapping partition and processing, for example set the low frequency response range in 39-1001 Hz, for the audio device, in order to customize the audio device for different users.

Regarding claim 21, Bottesch further discloses the audio device, wherein said at least one transducer assembly includes a vibrotactile transducer (14).

Regarding claims 22-25, Bottesch further discloses the audio device, wherein a volume of said low, middle or high frequency range is adjustable (70).

Regarding claims 28-31, Bottesch does not clearly teach in details of the sound source as claimed. Since providing a suitable sound source for a headset of an audio device is very well known in the art, it therefore would have been obvious to one skilled in the art at the time the invention was made to be motivated to provide suitable sound source with desirable connection, such as a popular MP3 player with wireless connection to the headset of the audio device, in order to utilize the headset in different application.

Regarding claim 37, Bottesch further discloses the audio device, wherein the transducer assembly is associated with a band (12) that encircles the head of a user.

Regarding claim 38, Bottesch does not clearly teach in details of waterproof coating as claimed. Since providing a suitable waterproof coating for a transducer assembly of a headset of an audio device is very well known in the art, it therefore would have been obvious to one skilled in the art at the time the invention was made to be motivated to provide suitable waterproof coating to the transducer assembly of the audio device, in order to utilize the headset in different application and make the device more durable.

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Method claims 40-47 are similar to claims 6, 9-10, 12-14, 18-26, 28-31 and 34-38 except for being couched in method terminology; such methods would be inherent when the structure is shown in the references.

***Conclusion***

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Suhan Ni** whose telephone number is **(571)-272-7505**, and the number for fax machine is **(571)-273-7505**. The examiner can normally be reached on Monday through Thursday from 10:00 am to 8:00 pm. If it is necessary, the examiner's supervisor, **Sinh N. Tran**, can be reached at **(571)-272-7564**.

11. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (**PAIR**) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov/>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

12. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the group receptionist whose telephone number is **(571)-272-2600**, or please see <http://www.uspto.gov/web/info/2600>.

August 20, 2006

  
**SUHAN NI**  
**PRIMARY EXAMINER**